

### ABSTRACT

A process for PECVD of selected material films on a substrate comprising the steps of placing a substrate in a PECVD chamber and maintaining the chamber under vacuum pressure while introducing a precursor gas, a reactant gas, and an ionization enhancer agent into the chamber. A plasma is generated from the gases within the chamber. The energy generating the plasma causes the formation of charged species. The resulting charged species of the ionization enhancer agent assists in the formation of chemically reactive species of at least the precursor.